REMARKS

I.   General

Claims 1-28 are currently pending, and claims 3, 20, and 25 are amended by this response. The issues in the Office Action mailed October 4, 2004 are as follows:

- Claims 1, 2, 10-19, 23, and 28 are rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent 6,191,879 (hereinafter, *Yanagisawa*).

- Claim 27 is rejected under 35 U.S.C. §103 as being obvious over *Yanagisawa* in view of U.S. Patent 6,580,537 (hereinafter, *Chang*).

- Claims 3-9, 20-22, and 24-26 are objected to for depending upon rejected base claims, but are otherwise indicated as allowable.

Applicants hereby traverse the outstanding rejections and request reconsideration and withdrawal in light of the remarks contained herein.

II.   Claim Amendments

Claims 3 and 20 have been amended to be in independent form, including the features of intervening claims, and claim 25 has been amended to correct a typographical error. No new matter is added. These amendments are not in response to any art, nor do they narrow the scope of the claims.

III.   Claims Indicated as Allowed

Claims 3-9, 20-22, and 24-26 are objected to for depending upon rejected base claims, but are otherwise indicated as allowable. Applicants thank the Examiner for this indication of allowable subject matter. Applicants have amended claims 3 and 20 to be in independent form. Therefore, it is respectfully requested that the objections to claims 3-9, 20-22, and 24-26 be withdrawn.

IV.   Claim Rejections

A.   Rejections Under 35 U.S.C. §102

Claims 1, 2, 10-19, 23, and 28 are rejected under 35 U.S.C. §102(e) as being anticipated by *Yanagisawa*. Applicants traverse the rejection.

1.   Claims 1, 2, and 10

To anticipate a claim under 35 U.S.C. § 102, a reference must teach every element of the claim, see M.P.E.P. § 2131. Moreover, in order for an applied reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim," see M.P.E.P. § 2131, citing *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989). As discussed further below, these requirements are not satisfied by the 35 U.S.C. § 102 rejection because *Yanagisawa* does not teach every element of the claims.

Claim 1 recites, in part, "a control circuit coupled to said averaging filter circuit, said control circuit operable to couple said average value of said burst-mode data transmission signal acquired during a preamble portion of said burst-mode data transmission signal to said decision threshold level during substantially all of a payload portion of said burst-mode data transmission signal." *Yanagisawa* does not teach the above-recited feature of claim 1 because *Yanagisawa* does not couple an average value of a burst-mode data transmission signal to a decision threshold level. This is illustrated by *Yanagisawa* in two ways. First, without conceding that the decision level controller of *Yanagisawa* (item 103 of Fig. 1) is the same as the decision threshold level of claim 1, *Yanagisawa* teaches that the only signals that are input to the decision level controller are V+ and V- and a timing signal. See Col. 6, lines 6-9, and Fig. 1. Neither the timing signal nor the V+ and V- signals are an average value of a burst-mode data transmission signal. The V+ and V- inputs to the decision level controller are not an average value of a burst-mode data transmission signal, but, instead, are voltage signal representations of the output current of the photodiode, which is a representation of the input optical signal. See Col. 3, lines 20-35. It should also be noted that *Yanagisawa* does not teach that the timing signal input to the decision level controller is an average value of a burst-mode data transmission signal.

Second, the only average that is computed by the *Yanagisawa* system is used to cancel a DC current offset from the photodiode (item 101 of Fig. 1) at the input end of the preamplifier (item 102 of Fig. 1) and is, therefore, not coupled to a decision threshold level. *Yanagisawa* teaches that an average of voltages V+ and V- is detected. See Fig. 1, item 106, and Col. 5, lines 34-37, of *Yanagisawa*. *Yanagisawa* teaches that this average and a peak voltage of Vd+ are output to a differential amplifier, which outputs a signal (Sc1) that represents the difference between the average voltage and the peak voltage. Col. 5, lines 37-47. The signal Sc1 is then added to a signal Sc2 before being input to the base of a current control transistor to cancel a DC component of the current from the photodiode. See Fig. 1, items 101, 106-108, and 114, Col. 4, lines 37-45, and Col. 5, lines 48-55. Thus, the average that is computed by the *Yanagisawa* system is used in a feedback control signal at the input end of the preamplifier, and, therefore, is not coupled to a decision threshold level. Accordingly, the above-recited feature of claim 1 is not taught by *Yanagisawa*.

Dependent claims 2 and 10 each depend either directly or indirectly from independent claim 1 and, thus, inherit all of the limitations of independent claim 1. Thus, *Yanagisawa* does not teach all claim limitations of claims 2 and 10. It is respectfully submitted that dependent claims 2 and 10 are allowable at least because of their dependence from claim 1 for the reasons discussed above. Therefore, Applicants respectfully request withdrawal of the rejection of claims 1, 2, and 10.

2.   Claims 11-17

Claim 11 recites, in part, "coupling said average threshold value of said first voltage converted during said preamble portion to said decision threshold voltage level during substantially all of said payload portion of said input signal." *Yanagisawa* does not teach the above-recited feature of claim 11 because it does not teach coupling an average threshold value of a first voltage to a decision threshold voltage level. This is illustrated by *Yanagisawa* in two ways. First, without conceding that the decision level controller of *Yanagisawa* (item 103 of Fig. 1) is the same as the decision threshold voltage level of claim 11, *Yanagisawa* teaches that the only signals that are input to the decision level controller are V+ and V- and a timing signal. See Col. 6, lines 6-9, and Fig. 1. Neither the timing signal nor the V+ and V- signals are an average threshold value of a first voltage. The V+ and V-

inputs to the decision level controller are not an average threshold value of a first voltage, but, instead, are voltage signal representations of the output current of the photodiode, which is a representation of the input optical signal. See Col. 3, lines 20-35. It should also be noted that *Yanagisawa* does not teach that the timing signal input to the decision level controller is an average threshold value of a first voltage.

Second, the only average that is computed by the *Yanagisawa* system is used to cancel a DC current offset from the photodiode (item 101 of Fig. 1) at the input end of the preamplifier (item 102 of Fig. 1) and is, therefore, not coupled to a decision threshold voltage level. *Yanagisawa* teaches that an average of voltages V+ and V- is detected. See Fig. 1, item 106, and Col. 5, lines 34-37, of *Yanagisawa*. *Yanagisawa* teaches that this average and a peak voltage of Vd+ are output to a differential amplifier, which outputs a signal (Sc1) that represents the difference between the average voltage and the peak voltage. Col. 5, lines 37-47. The signal Sc1 is then added to a signal Sc2 before being input to the base of a current control transistor to cancel a DC component of the current from the photodiode. See Fig. 1, items 101, 106-108, and 114, Col. 4, lines 37-45, and Col. 5, lines 48-55. Thus, the average that is computed by the *Yanagisawa* system is used in a feedback control signal at the input end of the preamplifier, and, therefore, is not coupled to a decision threshold voltage level. Accordingly, the above-recited feature of claim 11 is not taught by *Yanagisawa*.

Dependent claims 12-17 each depend either directly or indirectly from independent claim 11 and, thus, inherit all of the limitations of independent claim 11. Thus, *Yanagisawa* does not teach all claim limitations of claims 12-17. It is respectfully submitted that dependent claims 12-17 are allowable at least because of their dependence from claim 11 for the reasons discussed above. Therefore, Applicants respectfully request withdrawal of the rejection of claims 11-17.

3.   Claims 18, 19, 23, and 28

Claim 18 recites, in part, "said control circuit operable to couple said average value of said first voltage converted during said preamble portion of said input signal to said decision threshold voltage level at said control port during substantially all of said payload portion of said input signal." *Yanagisawa* does not teach the above-recited feature because it does not teach a control circuit operable to couple an average value of a first voltage to a decision

threshold voltage level. This is illustrated by *Yanagisawa* in two ways. First, without conceding that the decision level controller of *Yanagisawa* (item 103 of Fig. 1) is the same as the decision threshold voltage level of claim 18, *Yanagisawa* teaches that the only signals that are input to the decision level controller are V+ and V- and a timing signal. See Col. 6, lines 6-9, and Fig. 1. Neither the timing signal nor the V+ and V- signals are an average value of a first voltage. The V+ and V- inputs to the decision level controller are not an average value of a first voltage, but, instead, are voltage signal representations of the output current of the photodiode, which is a representation of the input optical signal. See Col. 3, lines 20-35. It should also be noted that *Yanagisawa* does not teach that the timing signal input to the decision level controller is an average value of a first voltage.

Second, the only average that is computed by the *Yanagisawa* system is used to cancel a DC current offset from the photodiode (item 101 of Fig. 1) at the input end of the preamplifier (item 102 of Fig. 1) and is, therefore, not coupled to a decision threshold voltage level. *Yanagisawa* teaches that an average of voltages V+ and V- is detected. See Fig. 1, item 106, and Col. 5, lines 34-37, of *Yanagisawa*. *Yanagisawa* teaches that this average and a peak voltage of Vd+ are output to a differential amplifier, which outputs a signal (Sc1) that represents the difference between the average voltage and the peak voltage. Col. 5, lines 37-47. The signal Sc1 is then added to a signal Sc2 before being input to the base of a current control transistor to cancel a DC component of the current from the photodiode. See Fig. 1, items 101, 106-108, and 114, Col. 4, lines 37-45, and Col. 5, lines 48-55. Thus, the average that is computed by the *Yanagisawa* system is used in a feedback control signal at the input end of the preamplifier, and, therefore, is not coupled to a decision threshold voltage level. Accordingly, the above-recited feature of claim 18 is not taught by *Yanagisawa*.

Dependent claims 19, 23, and 28 each depend either directly or indirectly from independent claim 18 and, thus, inherit all of the limitations of independent claim 18. Thus, *Yanagisawa* does not teach all claim limitations of claims 19, 23, and 28. It is respectfully submitted that dependent claims 19, 23, and 28 are allowable at least because of their dependence from claim 18 for the reasons discussed above. Therefore, Applicants respectfully request withdrawal of the rejection of claims 18, 19, 23, and 28.

B.   Rejections Under 35 U.S.C. §103

Claim 27 is rejected under 35 U.S.C. §103(a) as being obvious over *Yanagisawa* in view of *Chang*. Applicants traverse the rejection.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the applied reference. Second, there must be a reasonable expectation of success. Finally, the applied reference must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. Without conceding any other criteria, Applicants respectfully assert that the rejection does not satisfy the third criterion, as discussed further below.

Dependent claim 27 depends from independent claim 18 and, thus, inherits all of the limitations of independent claim 18. As shown above, *Yanagisawa* does not teach every feature of claim 18. Further, the Office Action does not rely on *Chang* to correct the deficiency. Thus, the cited combination does not teach or suggest all claim limitations of claim 27. It is respectfully submitted that dependent clam 27 is allowable at least because of its dependence from claim 18 for the reasons discussed above.

V.   Conclusion

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Applicants believe that a fee of $200.00 is due with this response. However, if any additional fee is due, please charge our Deposit Account No. 06-2380, under Order No. 59182/P016US/10107827 from which the undersigned is authorized to draw.

Dated: January 4, 2005   Respectfully submitted,

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